

Appl. No. 09/783,377

REMARKS

Claims 21, 32, 35, 40 and 42 are amended. Claims 21-28, 32-37 and 40-46 are pending in the application.

Claims 21-28 and 32-34 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner indicates that the recited "greater than 0 ppm" is not disclosed or suggested in the original specification. Applicant disagrees and requests reconsideration.

Referring to MPEP § 2163.02, the appropriate standard for determining compliance with the written description requirement of § 112 is whether or not an applicant has conveyed with reasonable clarity to those skilled in the art that he or she was in possession of the invention claimed. Applicant's specification as originally filed sets forth at various locations that dopant materials can be included over a range of less than or equal to about 1000 ppm (page 8, lines 1-4; page 8, lines 17-23; page 13, lines 6-7; page 14, lines 19-22). The applicant's specification additionally indicates that within the range of less than or equal to about 1000 ppm of dopant materials, an exemplary or typical amount can be between 5 ppm and 1000 ppm and a preferable amount can be between 10 ppm and 100 ppm (page 13, lines 12-15). Further, applicant's specification as originally filed specifically recites a material comprising "greater than 0 ppm and less than or equal to about 100 ppm of one or more dopant materials" (claim 14 as originally filed). Accordingly, applicant's specification would clearly convey to one skilled in the art that applicant had possession of the invention claimed in claims 21-34 since the recited range of "greater than 0 ppm to less than or equal to 1000 ppm of one or more dopant materials" is fully set forth in the specification as originally filed. Claims 21-28 and 32-34 therefore comply with the written

Appl. No. 09/783,377

description requirement and applicant requests withdrawal of the § 112 first paragraph rejection of such claims in the Examiner's next action.

Claims 21-28, 32-37 and 40-46 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over various cited combinations of the following references: Dunlop, U.S. Patent No. 5,809,393; Xu, U.S. Patent No. 6,451,179; "Aluminum and Aluminum Alloys" p. 639; Takashima, U.S. Patent Application Publication No. 2002/0014406; Ueda, U.S. Patent No. 5,541,007 and Legresy, U.S. Patent No. 5,160,388. The Examiner is reminded by direction to MPEP § 2143 that a proper obviousness rejection has the following three requirements: 1) there must be some suggestion or motivation to modify or combine reference teachings; 2) there must be a reasonable expectation of success; and 3) the combined references must teach or suggest all of the claim limitations. Pending claims 21-28, 32-37 and 40-46 are allowable over the various cited combinations of Dunlop, Xu, "Aluminum and Aluminum Alloys" (Aluminum), Takashima, Ueda and Legresy for at least the reason that the references, individually or as combined, fail to disclose or suggest each and every element in any of those claims.

As set forth in applicant's previous response, none of the cited references, individually or in combination, disclose or suggest the recited materials containing at least one element selected from the recited lists. As acknowledged by the Examiner at pages 3-4 of the present action, Dunlop does not disclose or suggest dopant materials including at least one element selected from the group consisting of Ac, As, B, Ba, Be, Bi, C, Ca, Cd, Ge, In, N, O, P, Pb, Po, Pu, Ra, Rf, S, Sb, Se, Sn, Sr, Te, Tl, and Zn, which is recited in each of independent claims 21, 32, 35, 40 and 42. The Examiner further acknowledges at page 9 of the present Action that Legresy does not disclose or suggest any of these recited

Appl. No. 09/783,377

elements. The Examiner indicates reliance on "Aluminum" as disclosing that various members of the recited group can be present in high purity aluminum. Applicant notes that the "Aluminum" reference clearly indicates that the elements contained in Table 1 can be present as impurities in high purity aluminum at the amounts listed. Each of independent claims 21, 32 and 35 are amended to clarify that the recited dopants are added during formation of the target. The amendment to the independent claims is supported by the specification at, for example, page 13, lines 4-11, which clearly indicates that the dopant materials are not considered impurities and that the dopant concentrations are not considered in determining the purity of the aluminum. Accordingly, as combined, Dunlop, Legresy and "Aluminum" fail to disclose or suggest the recited addition of at least one element selected from the group consisting of Ac, As, B, Ba, Be, Bi, C, Ca, Cd, Ge, In, N, O, P, Pb, Po, Pu, Ra, Rf, S, Sb, Se, Sn, Sr, Te, Tl, and Zn.

As indicated at page 3 of the present Action, Xu is relied upon as disclosing use of high purity aluminum for dewetting layers. As indicated at page 5 of the present Action, Takashima is relied upon as disclosing high purity aluminum target materials containing elements such as Sc, Ti, and Hf. As indicated at page 7 of the present Action, Ueda is relied upon as disclosing usefulness of a high purity aluminum for sputtering targets having low resistivity. However, as combined with Dunlop, Legresy and "Aluminum", the high purity aluminum disclosed by Xu, the material containing elements such as Sc, Ti or Hf as disclosed by Takashima and the usefulness of high purity aluminum for low resistivity sputtering targets disclosed by Ueda, do not contribute toward suggesting the claims 21, 32, and 40 recited one or more added dopant materials including at least one element selected from the group consisting of Ac, As, B, Ba, Be, Bi, C, Ca, Cd, Ge, In, N, O, P, Pb,

Appl. No. 09/783,377

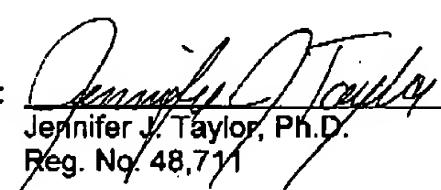
Po, Pu, Ra, Rf, S, Sb, Se, Sn, Sr, Te, Tl, and Zn. Accordingly, independent claims 21, 32 and 40 are not rendered obvious by the various cited combinations of Dunlop, Xu, "Aluminum", Takashima, Ueda and Legresy.

Dependent claims 22-28, 33-34, 36-37, 41 and 43-46 are allowable over the various cited combinations of Dunlop, Xu, "Aluminum", Takashima, Ueda and Legresy for at least the reason that they depend from corresponding allowable base claims 21, 32, 35, 40 and 42.

For the reasons discussed above, pending claims 21-28, 32-37 and 40-46 are allowable. Accordingly, applicant respectfully requests formal allowance of such pending claims in the Examiner's next action.

Respectfully submitted,

Dated: November 9, 2004

By: 

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